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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,097	09/07/2005	Thomas Mueller	14603-012US1	2670
26161 7590 06/26/2007 FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER DEB, ANJAN K	
			ART UNIT 2858	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/526,097	<b>Applicant(s)</b> MUELLER, THOMAS	
	<b>Examiner</b> Anjan K. Deb	<b>Art Unit</b> 2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 February 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-16 is/are rejected.
- 7) ☒ Claim(s) 4,5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/24/2007, 02/25/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION*****Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show suitable descriptive label for box 406 (Fig. 1) and box 91,92,101,102,200,300 (Fig. 3) as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly

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labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

### *Specification*

2. The disclosure is objected to because of the following informalities: Layout of specification does not conform to the preferred layout for the specification of a utility application for US Patent.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6, 8, 10, 12-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Kish et al. (US 7,043,109 B2).

Re claims 1, 10, 12, 13 Kish et al. disclosed method (Fig. 17,23) for use with an integrated circuit (PIC) that is light-sensitive, the method comprising: applying different wavelengths (Fig. 33,34) of light 132 from external light source (laser)(column 21 line 62,63) to the integrated circuit, the integrated circuit producing output signals in response to the different wavelengths of light, measuring the output (column 21 line 63) signals to obtain measured values; comparing the measured values to setpoint values 140 (desired output) that correspond to the different wavelengths of light obtaining correction values (calibrate data) for the different wavelengths of light, the correction values being based on comparison 140 of the measured values to the setpoint values 140 (desired output) and storing (144,232) (Fig. 17,23) the correction values on the integrated circuit (column 34 lines 6-10).

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Re claims 2 and 14, Kish et al. disclosed semiconductor substrate 32 and testing is performed using testing card 200 (probe card) (Fig. 22).

Re claims 3, 6 and 15, Kish et al. disclosed different wavelengths of light (optical spectrum) are applied via light-emitting diodes (LD DRIVER) and integrated circuit comprises one or more photodiodes PD (Fig. 37).

Re claim 8, Kish et al. disclosed semiconductor chip comprising light sensitive integrated circuit (PIC) (column 6 lines 20-26) that stores information for use in correcting wavelength-dependent output signal of the light sensitive integrated circuit (PIC)(column 6 line 64 to column 7 line 2).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kish et al. (US 7,043,109 B2) in view of De Vries et al. (US 5,736,848).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Re claims 7 and 16, Kish disclosed all of the claimed limitations as set forth above except wherein correction values are stored using zener diodes.

De Vries et al. disclosed measurement and calibration system wherein memory 11 is provided with zener diode for storing a digital calibration value.

At the time the invention was made it would have been obvious for one of ordinary skill in the art to modify Kish et al. by providing memory with zener diode disclosed by De Vries et al. for storing a digital calibration value.

5. Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kish et al. (US 7,043,109 B2) in view of Matsuyama (US 6,876,187 B2).

Re claims 9 and 11, Kish et al. disclosed all of the claimed limitations as set forth above except temperature sensor for measuring temperature of light source and correction data derived from the temperature.

Matsuyama disclosed applying light with different wavelength to a cell and photoelectric conversion characteristic of the sample cell is corrected (temperature correction) based on the measured temperature (column 6 lines 4-16).

At the time the invention was made it would have been obvious for one of ordinary skill in the art to modify Kish et al. by adding a temperature sensor for measuring the temperature of light source since Matsuyama disclosed temperature correction of measured data.

At the time the invention was made it would have been obvious for one of ordinary skill in the art to modify Kish et al. by adding a temperature sensor for measuring the temperature of light source since Matsuyama disclosed temperature correction of measured data.

***Allowable Subject Matter***

6. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 4 and 5 are allowed for the inclusion of “wherein the measured values define a sensitivity curve; and wherein a smallest interval between two of the different wavelengths on the sensitivity curve is smaller than an interval between a local sensitivity maximum and a local sensitivity minimum on the sensitivity curve.”

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kearney (US 5,572,472 A) disclosed memory cell using zener diode as a memory element that are employed in memory array for providing a plurality of bits.


Cadell (US 6,700,661B1) disclosed method of wavelength calibration of photodiode.

Ohno (US 5,072,112) disclosed method of self-calibration of silicon photodiode.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Anjan K. Deb whose telephone number is 571-272-2228. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached at (571) 272-2168.



**Anjan K. Deb, P.E, Ph.D.**

Primary Patent Examiner

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6/20/07

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